PART Y-10
EMERGENCY RESPONSE

WAC 96-307-704 Scope.

What is the purpose of WAC 296-307-704, Emergency response to hazardous substance releases?

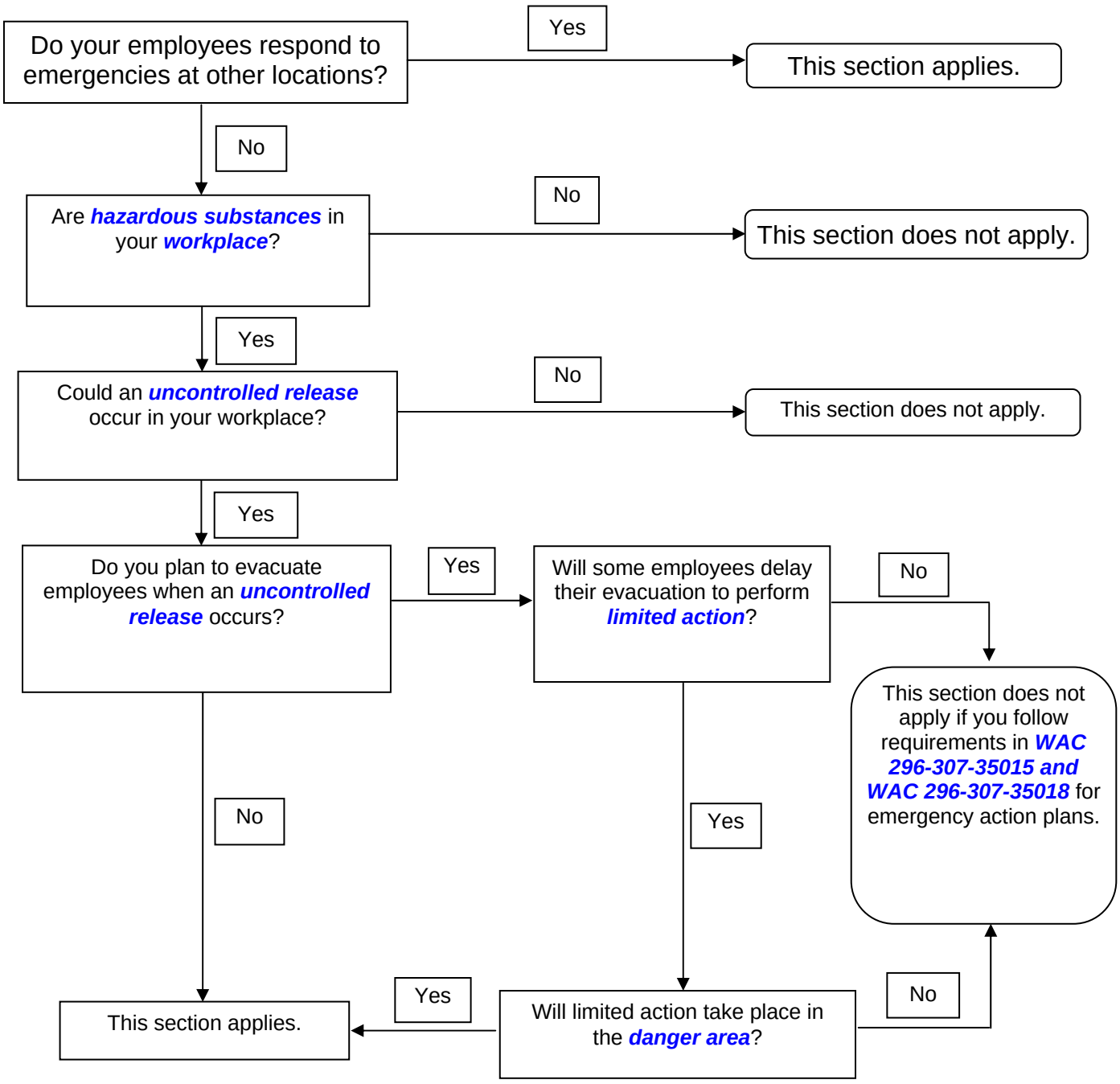
To state the minimum requirements that help you protect the safety and health of your employees during a response to hazardous substance releases in your workplace or any other location.

Do the requirements of this rule apply to your workplace?

This section applies if your employees are, or could become, involved in responding to uncontrolled releases of hazardous substances in your workplace or any other location. Use the scope flow chart, and definitions that follow, to determine if this section applies to your workplace(s). Defined words are italicized in the flow chart.

WAC 296-307-704 (Cont.)

296-307 Scope Flowchart



WAC 296-307-704 (Cont.)

*The flow chart references other rules applicable to your workplace depending on conditions and hazards.

Examples include:

- Chapter 296-828 WAC, Hazardous chemicals in laboratories
- WAC 296-307-594, Respiratory protection.

Definitions applicable to the flow chart (see WAC 296-307-70480 for additional definitions used in this section):

Danger area
Areas where conditions pose a serious danger to employees, such as areas where:

- Immediately dangerous to life or health (IDLH) conditions could exist
  OR
- High levels of exposure to toxic substances could exist
  OR
- There is a potential for exceeding the lower explosive limit (LEL), also known as the lower flammability limit (LFL), of a substance.

Emergency response
A response to an anticipated release of a hazardous substance that is, or could become, an uncontrolled release.

Hazardous substance
Any biological, radiological, or chemical substance that can have adverse effects on humans. (See WAC 296-307-70480 for a more specific definition.)

Immediately dangerous to life or health (IDLH)
Any atmospheric condition that would:

- Cause an immediate threat to life
- Cause permanent or delayed adverse health effects
- Interfere with an employee's ability to escape.

Incidental release
A release that can be safely controlled at the time of the release and does not have the potential to become an uncontrolled release.

Example of a situation that results in an incidental release:

A tanker truck is receiving a load of hazardous liquid when a leak occurs. The driver knows the only hazard from the liquid is minor skin irritation. The employer has trained the driver on procedures and provided equipment to use for a release of this quantity. The driver puts on skin protection and stops the leak. A spill kit is used to contain, absorb, and pick up the spilled material for disposal.

Limited action
Action necessary to:

WAC 296-307-704 (Cont.)

- Secure an operation during emergency responses,
  OR
- Prevent an incident from increasing in severity.

Examples include shutting down processes and closing emergency valves.

Release
A spill, leak, or other type of hazardous substance discharge.

Uncontrolled release
A release where significant safety and health risks could be created. Releases of hazardous substances that are either incidental or could not create a safety or health hazard (i.e., fire, explosion or chemical exposure) are not considered to be uncontrolled releases.

Examples of conditions that could create a significant safety and health risk:

- Large-quantity releases
- Small-releases that could be highly toxic
- Airborne exposures that could exceed a WISHA permissible exposure limit or a published exposure limit and employees are not adequately trained or equipped to control the release.

Example of an uncontrolled release:

A forklift driver knocks over a container of a solvent-based liquid, releasing the contents onto the warehouse floor. The driver has been trained to recognize the vapor is flammable and moderately toxic when inhaled. The driver has not been trained or provided appropriate equipment to address this type of spill. In this situation, it is not safe for the driver to attempt a response. The driver needs to notify someone of the release so an emergency response can be initiated.

Workplace

- A fixed facility
  OR
- A temporary location (such as a traffic corridor)
  OR
- Locations where employees respond to emergencies.

Summary:

Your responsibility:

To anticipate, plan for, and manage emergency response operations so employees are protected from hazardous substances and conditions.

Note: Other chapters may apply to your workplace, such as:

- Chapter 296-62 WAC, General occupational health standards.

You will find some safety and health requirements (for example, personal protective equipment) are addressed on a general level in the core rules, while being addressed for a specific application in this section. When this happens, both requirements apply and should not conflict.

WAC 296-307-704 (Cont.)

If you are uncertain which requirements to follow, you must comply with the more protective requirement. Contact your local L&I office if you need assistance in making this determination.

You must:

WAC 296-307-70410 Planning
WAC 296-307-70415 Training
WAC 296-307-70420 Medical surveillance
WAC 296-307-70425 Keep records
WAC 296-307-70430 Incident requirements
WAC 296-307-70435 Implement and maintain an incident command system (ICS) (incident command system)
WAC 296-307-70440 Prepare skilled support personnel
WAC 296-307-70445 Make sure the incident commander oversees activities during the response
WAC 296-307-70450 Use the buddy system in danger areas
WAC 296-307-70455 Provide rescue and medical assistance
WAC 296-307-70460 Personal protective equipment
WAC 296-307-70465 Control hazards created by personal protective equipment (PPE)
WAC 296-307-70470 Use personal protective equipment (PPE) properly
WAC 296-307-70475 Postemergency response
WAC 296-307-70480 Definitions.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 06-02-060 (Order 05-19), § 296-307-704, filed 01/03/06, effective 04/01/06. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70410, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70410 Planning Develop an emergency response plan.

Note:

- You may already have an emergency response plan, such as required by chapter 296-843 WAC, Hazardous waste operations or by state and locally coordinated response efforts (Section 303 of Superfund Amendments and Reauthorization Act (SARA), Title III). You may use those plans to comply with this section, if they include the items listed below.
- Before a written emergency response plan can be developed, you will need to anticipate the types of uncontrolled releases that employees could encounter in your workplace(s).

You must:

(1) Make sure your plan is written and adequately addresses, as a minimum, all of the following:

- Preemergency planning and coordination with additional responders (including personnel from other employers such as: Fire departments, law enforcement agencies, emergency medical services, and state or federal agencies).
- Personnel roles, (see Table 1) and lines of authority and communications for all affected parties including responders.
- Employee training (see WAC 296-307-70415, train your employees), for more detail:

Note:

- Responders' level of training depends on the duties and roles the employer assigns.
- Training for the employees' role should address the competencies specified in Tables 3 through 6.

WAC 296-307-70410 (Cont.)

- Training on specific substances may be appropriate depending on the number and characteristics of hazardous substances expected to be encountered. For example, if employees may only respond to one substance, you could provide training (covering the knowledge and skills specified in Tables 3 through 6) relevant to that single substance. If employees might respond to a range of hazardous substances, training may be required to cover categories of hazardous substances.

You must:

- Videos and automated training methods (for example: Interactive computer based programs) may be used in training; however, instructors must be readily available to:

  - Encourage and provide responses to questions for the benefit of the group
  - Evaluate employees' understanding of the material
  - Provide instructional interaction to the group.

- Emergency recognition
- Immediate emergency procedures including:

  - Methods of alerting employees (see WAC 296-307-345, Employee alarm systems) and outside responders
  - Procedures for limited action (emergency prevention).

Note: ***Limited action*** includes shutting down processes, closing emergency valves and other critical actions to secure the operation, or prevent the incident from increasing in severity.

Limited Action and Employee Roles	
If . . .	**Then employees involved would be:**
Limited action could be conducted in the danger area	Considered emergency responders
Limited action will not be conducted in IDLH conditions	Considered evacuees, not emergency responders

- Details of who will evacuate immediately and who will remain behind for limited action
- Evacuation routes and procedures
- How to establish safe distances and places of refuge (for example, during emergency response the incident commander (IC) decides to make changes based on new developments, i.e., changes in the wind direction).

You must:

- Methods of securing and controlling access to the site
- Emergency medical treatment and first aid
- A complete personal protective equipment (PPE) program that addresses:

  - Selection of PPE including selection criteria to be used and the identification, specified use and limitations of the PPE selected
  - Training on proper use of PPE (including maintenance)
  - Hazards created by wearing PPE including heat stress during temperature extremes, and/or other appropriate medical considerations

WAC 296-307-70410 (Cont.)

- Criteria used for determining the proper fit of PPE
- Procedures covering proper use of PPE including procedures for inspection, putting it on (donning) and removing it (doffing)
- Maintenance of PPE including procedures for decontamination, disposal and storage
- Methods used to evaluate the effectiveness of your PPE program.

Note:

- If a manufacturer's printed information or WISHA rule adequately addresses procedural requirements (such as donning or doffing for PPE), it is not necessary to rewrite this into your program; simply attach the printed information.
- You may use written procedures provided by the equipment manufacturer when they meet the requirements of other chapters, including chapter 296-307 WAC, Part Y-5, Respirators.

- Emergency equipment
- Emergency response procedures
- Decontamination procedures determined by a hazardous materials specialist or other qualified individual
- Methods to critically assess the response and conduct appropriate follow-up.

You must:

(2) Make your written emergency response plan available to employees, their representatives, and WISHA personnel for inspecting or copying.

Note: In situations where multiple employers could respond to an incident, all plans should consistently address:

- Who will be designated as the incident commander (IC)
  AND
- If, when, and how transfer of the incident commander (IC) position will take place.

WAC 296-307-70410 (Cont.)

Table 1
Roles and Duties of Emergency Responders

If the employee's role is:	Then all the following apply. They:
First responder at the awareness level	• Are likely to witness or discover a hazardous substance release • Are trained to initiate an emergency response by notifying the proper authorities of the release • Take no further action beyond notifying the authorities
First responder at the operations level	• Respond to actual or potential releases in order to protect nearby persons, property, and/or the environment from the effects of the release • Are trained to respond defensively, without trying to stop the release • May try to: - Confine the release from a safe distance - Keep it from spreading - Protect others from hazardous exposures
Hazardous materials technician	• Respond to releases or potential releases, with the intent of stopping the release • Are trained to approach the point of release offensively in order to, either: - Plug - Patch - Stop the release using other methods
Hazardous materials specialist	• Respond along with, and provide support to, hazardous materials technicians • Are required to have more specific knowledge of hazardous substances than a hazardous materials technician • Act as the site activity liaison when federal, state, local, and other government authorities participate
Incident commander	• Have ultimate responsibility for: - Direction - Control - Coordination of the response effort - Will assume control of the incident beyond the first responder awareness level
Specialist employee	• Are a technical, medical, environmental, or other type of expert • May represent a hazardous substance manufacturer, shipper, or a government agency • May be present at the scene or may assist from an off-site location • Regularly work with specific hazardous substances

WAC 296-307-70410 (Cont.)

Table 1 (Continued)

	• Are trained in the hazards of specific substances • Are expected to give technical advice or assistance to the incident commander or incident safety officer, when requested
Skilled support personnel	• Are needed to perform an immediate, specific emergency support task at the site • Are skilled in the operation of equipment including: – Earth moving equipment – Cranes – Hoisting equipment
Incident safety officer	• Are designated by the incident commander • Are knowledgeable in operations being implemented at the site • Have specific responsibility to – Identify and evaluate hazards – Provide direction on employee safety matters

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70410, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70415 Training.

Train your employees

Note:

- Use Tables 3 through 6 to identify your employees' training competencies.
- You may conduct training internally, or use outside training services to comply with this section.
  - When outside trainers are hired, you are still responsible for making sure the requirements of this section are met. For example, employers may compare the course outline to the competencies listed in Tables 3 through 6.

You must:

- Make sure employees are appropriately trained for their assigned roles and duties as follows:

Exemption: Skilled support employees are not covered by the training requirements of this section (see WAC 296-307-70440).

Initial training:

- Provide initial training before the employee is allowed to participate in an actual emergency response operation.

Note: When first responders at the awareness or operations level have sufficient experience to objectively demonstrate competencies specified in Table 3, you may accept experience instead of training.

WAC 296-307-70415 (Cont.)

- Make sure initial training adequately addresses the competencies in Tables 3 through 6 and the minimum training durations in Table 2.
- Certify that employees objectively demonstrate competencies specified in Tables 3 through 6 (except for employees trained as first responders at the awareness level).

You must:

Retraining (refresher) training:

- Provide retraining annually.
- Make sure retraining covers necessary content.
- Document training or demonstrated competency.

Note: Retraining is not required when employees demonstrate competencies annually and a record is kept of the demonstration methodology used.

You must:

Trainer qualifications:

- Verify trainers have satisfactorily completed an instructors' training course for the subjects they teach. For example, courses offered by the United States National Academy, or equivalent courses are acceptable.
  OR
- Have the educational and instructional experience necessary for training.

Specialist employees:

- Specialist employees who have been sent to the scene to advise or assist must receive training or demonstrate competency in their specialty, annually.

Table 2
Minimum Training Durations for all Responders

If you are a:	Then:
First responder at the awareness level	Training duration needs to be sufficient to provide the required competencies
First responder at the operations level	You need a minimum of 8 hours training (see Table 3)
Hazardous materials technician	You need a minimum of 24 hours training (see Table 4)
Hazardous materials specialist	You need a minimum of 24 hours training (see Table 4)
Incident commander	You need a minimum of 24 hours training (see Table 5)

WAC 296-307-70415 (Cont.)

Table 3 Competencies for First Responders at the Awareness Level and Operations Level		
Employees must be able to show they:	**When they are designated as First Responders at the:**	
	Awareness Level	**Operations Level**
Understand what hazardous substances are and their associated risks.	X	X
Recognize the presence of hazardous substances in an emergency.	X	X
Can identify the hazardous substances, when possible.	X	X
Understand the potential consequences of hazardous substances in an emergency.	X	X
Understand the role of a first responder at the awareness level as described in: • The employer's emergency response plan, including site security and control. • The United States Department of Transportation's Emergency Response Guidebook. (Search at: http://www.dot.gov.)	X	X
Can use The United States Department of Transportation's Emergency Response Guidebook.	X	X
Recognize the need for additional resources and the need to notify the incident's communication center accordingly.	X	X
Know basic hazard and risk assessment techniques.		X
Can select and use personal protective equipment (PPE) appropriate for first responder operations level.		X
Understand basic hazardous materials terms.		X
Can perform basic control, containment, and/or confinement operations within the capabilities of the resources and PPE available.		X
Can implement decontamination procedures to their level of training.		X
Understand relevant standard operating and termination procedures.		X

WAC 296-307-70415 (Cont.)

Table 4 Competencies for Hazardous Materials Technicians and Hazardous Materials Specialist		
Employees must be able to show they:	**When they are designated as a Hazardous Materials:**	
	Technician	**Specialist**
Have the competencies specified for the first responder operations level. (See Table 3)	X	X
Can implement an employer's emergency response plan.	X	X
Can function within their assigned role in the incident command system.	X	X
Understand hazard and risk assessment techniques.	X	X
Understand basic chemical and toxicological terminology and behavior.	X	X
Can use field survey instruments and equipment to classify, identify, and verify materials at the incident.	X	X
Can select and use personal protective equipment (PPE) appropriate for hazardous materials technicians.	X	X
Can perform advance control, containment, and/or confinement operations within the capabilities of the resources and PPE available.	X	X
Can implement decontamination procedures to their level of training.	X	X
Understand termination procedures.	X	X
Can implement the local emergency response plan.		X
Know of the state emergency response plan.		X
Can develop a site safety and control plan.		X
Understand chemical, radiological, and toxicological terminology and behavior.		X
Understand in-depth hazard and risk techniques.		X
Can use advanced survey instruments and equipment to classify, identify and verify materials at the incident.		X
Can select and use proper specialized chemical PPE given to hazardous materials specialists.		X
Can perform specialized control, containment, and/or confinement operations within the capabilities of the resources and PPE available.		X
Can determine decontamination procedures.		X

WAC 296-307-70415 (Cont.)

Table 5 Competencies for Incident Commanders
Employees designated as Incident Commanders must be able to show they:
• Have competencies specified for the First Responder Operations Level. (See Table 3.)
• Know of the state emergency response plan and the Federal Regional Response Team.
• Can implement the local emergency response plan.
• Can implement the employer's emergency response plan.
• Have knowledge of the incident command system (ICS) and understand how they relate to it.
• Can implement the employer's ICS.
• Understand the hazards and risks associated with employees working in chemical protective clothing.
• Understand the importance of decontamination procedures.
Note: If the first employee arriving at the scene is not trained as an IC, they may take control of the incident within their designated role and training level.

Table 6 Competencies for Specialist Employees
Employees designated as Specialist Employees must be able to show they:
• Have current knowledge in their field regarding safety and health practices relating to the specific hazardous substances.
• Have the knowledge of the ICS and understand how they relate to it.
• Understand the care and use of personal protective equipment (PPE).

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70415, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70420 Medical surveillance. Provide medical surveillance to employees.

You must:

(1) Provide medical surveillance for employees to comply with Tables 7 and 8, and the following:

- Make medical surveillance available at:
  - Reasonable times and places.
  - No cost to employees, including travel associated costs such as mileage, gas or bus fare if the employee is required to travel off site
    AND
  - Wages for additional time spent outside of employees' normal work hours.
- Make sure a licensed physician performs or supervises exams and procedures.
- Give complete information to the examining physician including:

WAC 296-307-70420 (Cont.)

- A copy of this section.
- A description of the employee's duties that relate to hazardous substance exposure.
- The hazardous substance exposure levels anticipated for the employee.
- A description of the personal protective equipment (PPE) the employee could use.
- Information available from previous medical examinations.
- The medical evaluation information required by chapter 296-307 WAC, Part Y-5, Respirators.

- Medical exams must include, at a minimum:

  - A medical history.
  - A work history (or updated history if on file).
  - A special emphasis on:

    - ♦ Assessment of symptoms related to handling hazardous substances.
    - ♦ Health hazards.
    - ♦ Evaluation of fitness for duty (including the ability to wear any personal protective equipment (PPE) or other conditions that may be expected at the workplace).

  - Other content as determined by the examining physician.

Note: The physician should consult the *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities and the Medical Management Guidelines for Acute Chemical Exposure* (search OSHA website: http://www.osha.gov).

You must:

(2) Obtain the physician's written opinion and give a copy to the employee that includes:

- A statement of whether or not medical conditions were found which would increase the employee's risk for impairment during emergency response work or respirator use.

  - Do not include specific findings or diagnoses unrelated to occupational exposures.

- Limitations recommended to the employee's assigned work, if any.
- Exam and test results if the employee requests this information.
- A statement that affirms the employee has been confidentially informed of medical exam results (including medical conditions requiring follow-up).

WAC 296-307-70420 (Cont.)

Table 7 Medical Surveillance for Employee Categories	
If the employee is covered by this section and is:	**Then you must:**
• Exposed for at least 30 days a year to health hazards or hazardous substances at or above the permissible exposure limit or published exposure levels (even when respirators are used), **OR** • Required to wear a respirator for at least 30 days a year.*	• Offer standard medical surveillance as specified in Table 8.*
• A hazardous materials (HAZMAT) team member. • A hazardous materials specialist.	• Provide standard medical surveillance as specified in Table 8.
• An emergency responder who shows immediate or delayed signs or symptoms possibly resulting from exposure to hazardous substances during an incident.	• Provide incident-specific medical surveillance as specified in Table 8.
• Not an emergency responder and: – May be injured. – Shows immediate or delayed signs or symptoms possibly resulting from exposure to hazardous substances. – May have been exposed to hazardous substances at concentrations above the permissible exposure limits (PELs) or the published exposure levels without appropriate PPE.	• Offer incident-specific medical surveillance as specified in Table 8.

.**Note*: A medical evaluation for respirator use is required by chapter 296-307 WAC, Part Y-5, Respiratory protection, for those employees who have not been cleared for respirator use during medical surveillance activities.

WAC 296-307-70420 (Cont.)

Table 8 Frequency of Exams and Consultations	
If the employee is covered by:	**Then medical surveillance must include:**
• Standard medical surveillance	Exams and consultations: • Before assignment. *Note:* If the employee is a hazardous materials (HAZMAT) team member or a hazardous materials specialist, the employee must receive a baseline physical examination. • At least once every 12 months after their initial assignment unless the physician believes a shorter, or longer interval (but no more than 24 months) is appropriate. • Whenever employees are reassigned to an area where they will no longer be covered by medical surveillance and they have not been examined within the past 6 months. • As soon as possible after an employee reports: – Signs or symptoms of possible overexposure to hazardous substances or health hazards. – Injury. – Exposure above the permissible exposure limits or published exposure levels. • At the termination of their employment unless they were examined within the past 6 months.
• Incident-specific medical surveillance	Medical consultations and exams: • As soon as possible following the incident or development of signs or symptoms. • At additional times, if the physician determines follow-up is medically necessary.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70420, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70425 Keep records.

You must:

- Keep a record of:
  - Name and Social Security number of the employee receiving medical surveillance
  - Physicians' written opinions, recommended limitations, and results of examinations and tests
  - Any employee medical complaints regarding hazardous substance exposures
  - A copy of all information given to the examining physician (except a copy of this section).

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70425, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70430 Incident requirements. Recognize emergencies and initiate a response.

You must:

- Make sure employees follow procedures in your emergency response plan to:

  - Recognize when an emergency response must be initiated
  - Notify employees, and others designated in your plan, of the release
  - Follow immediate emergency procedures
  - Prevent the incident from increasing in severity or to secure the operation.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70430, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70435 Implement and maintain an incident command system (ICS).

You must:

(1) Make sure a single individual, acting as the incident commander (IC), is in charge of the site-specific incident command system (ICS) and acts within their designated role and training level.

Note:

- For multiemployer worksites:

  - The IC has responsibility for controlling emergency response operations at the site for all employers.
  - Emergency response plans should be consistent in designating who assumes the IC position.

    - ♦ If the first employee arriving at the scene is not trained as an IC (see Table 5, Training Requirements for Incident Commanders and Specialist Employees, WAC 296-307-70415), they may take control of the incident within their designated role and training level.

You must:

(2) Make sure all employers' emergency responders and their communications are coordinated and controlled by the IC.

Note: The IC may delegate tasks to subordinates (within their training level).

You must:

(3) Make sure each employer at the scene has designated a representative to assist the IC.

(4) Establish security and control of the site as specified in your written emergency response plan.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70435, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70440 Prepare skilled support personnel.

Note: The duties of skilled support personnel are described in Table 1, Roles and Duties of Emergency Responders.

You must:

(1) Make sure that your skilled support personnel (including those employees who are not regularly employed by you) who could be exposed to on-scene hazards are given an initial briefing at the site before they participate in any emergency response. The initial briefing must include:

- What chemical hazards are involved
- What duties are to be performed
- Instruction in the wearing of appropriate personal protective equipment.

Note: Skilled support personnel do not need to comply with the other training requirements of this section.

You must:

(2) Make sure the safety and health precautions given to your employees are also given to skilled support personnel.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70440, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70445 Make sure the incident commander oversees activities during the response. The employer of the incident commander (IC) must:

(1) Identify all hazardous substances and conditions present, within their training level, using site analysis and maximum exposure limits, when appropriate.

(2) Implement emergency response procedures appropriate to the hazardous substances and conditions present, such as:

- Procedures that address the use of engineering controls, hazardous substance handling, and new technologies
- Procedures that address decontamination
- Procedures that address PPE
- Procedures that limit the number of personnel to those who are actively performing emergency response operations, in areas where exposure could exist.

(3) Designate an incident safety officer (ISO).

- Make sure the ISO demonstrates knowledge about operations being implemented at the emergency response site. They must:
  - Identify and evaluate hazards
  - Communicate with the IC about hazards, immediately informing the IC of corrective actions that must be taken when conditions are judged to be:
    - ♦ An imminent danger
      OR
    - ♦ Immediately dangerous to life or health (IDLH).
  - Provide direction about the safety of operations.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70445, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70450 Use the buddy system in danger areas.

You must:

- Make sure operations and tasks (including limited actions) in danger areas are conducted using the buddy system in teams of two or more.

Definition:

Danger areas are areas where conditions pose a serious danger to employees, such as areas where:

- Immediately dangerous to life or health (IDLH) conditions could exist.
  OR
- High levels of exposure to toxic substances could exist.
  OR
- There is a potential for exceeding the lower explosive limit (LEL), also known as the lower flammability limit (LFL) of a hazardous substance.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70450, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70455 Provide rescue and medical assistance.

You must:

(1) Provide stand-by employees equipped with the same level of personal protective equipment (PPE) as the entrants, for assistance or rescue.

Note:

- The buddy system applies to stand-by employees (WAC 296-307-70450).
- One of the two stand-by employees can be assigned to another task provided it does not interfere with the performance of the stand-by role.
- Rescue equipment should be selected and provided based on the types of rescue situations that could occur.

You must:

(2) Make sure employees trained in first aid are readily available with necessary medical equipment and have a way to transport the injured.

Note:

- Employers who require their employees to provide first aid must comply with the bloodborne pathogen rule, chapter 296-823 WAC.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70455, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70460 Personal protective equipment.

Note:

- Only properly trained employees should select PPE. Hazardous materials technicians and hazardous materials specialists can select PPE within the competencies specified in Table 4.
- Selection requirements in other PPE rules also apply, including:

WAC 296-307-70460 (Cont.)

- Chapter 296-307 WAC, Part Y-5, Respirators.
- Chapter 296-305 WAC, Safety standards for fire fighting.

You must:

- Provide employees with appropriate PPE and make sure it is used if hazards could be present.
- Select PPE (such as respirators, gloves, protective suits and other PPE) based on:
  - An evaluation of the performance characteristics (such as breakthrough time and hazardous substance-specificity of the material or item) relevant to the requirements and limitations of the site.
  - Task-specific conditions and durations.
  - The hazards and potential hazards of the site (see Table 9, Selecting PPE for Specific Hazards).
- Select totally encapsulating chemical protective (TECP) suits, as specified in Table 9, that:
  - Maintain positive air pressure.
  - Prevent inward test gas leakage of more than 0.5 percent.

Note: Follow the manufacturer's recommended procedure for testing a TECP suit's ability to maintain positive air pressure and prevent inward gas leakage. Other established test protocols for these suits, for example NFPA 1991 and ASTM F1052-97, may also be used.

Table 9
Selecting PPE for Specific Hazards

If:	Then use:
• Inhalation hazards could be present.	• Positive-pressure (pressure-demand) self-contained breathing apparatus (SCBA) **OR** • A decreased level of respiratory protection only when the incident commander determines, from air monitoring results, that employees will be adequately protected.
Chemical exposure levels will create a substantial possibility of: • Immediate death. • Immediate serious illness or injury. • Reduced ability to escape.	Either positive-pressure (pressure-demand): • SCBA • Air-line respirators equipped with an escape air supply.
Skin absorption of a hazardous substance may result in a substantial possibility of: • Immediate death. • Immediate serious illness or injury. • Reduced ability to escape.	Protection equivalent to Level A including a totally encapsulating chemical protective (TECP) suit.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70460, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70465 Control hazards created by personal protective equipment (PPE).

You must:

- Control hazards created by the use of PPE, including:

  - Heat stress due to extremely high temperatures.
  - Any other employee health hazard and consideration.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70465, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70470 Use personal protective equipment (PPE) properly.

You must:

(1) Make sure employees inspect PPE before, during and after use, following your plan's procedures.

(2) Make sure employees put on (don) and remove (doff) PPE following your plan's procedures.

(3) Make sure employees do not interchange self-contained breathing apparatus (SCBA) air cylinders from different manufacturers, unless all of the following apply:

- There is a life-saving emergency
- You need a supplemental air supply
- The cylinders are of the same capacity and pressure rating.

(4) Make sure compressed air cylinders used with SCBAs meet the testing and service life requirements of the United States Department of Transportation (USDOT). Search at: http://www.dot.gov.

Note: You can also check with the cylinder manufacturers to obtain USDOT test and service life specifications.

You must:

(5) Make sure PPE is maintained in a safe and reliable condition using your plan's procedures. PPE maintenance includes:

- Decontamination
- Cleaning
- Inspection
- Identification of damage or defects
- Parts repair or replacement
- Storage or disposal.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70470, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70475 Postemergency response.

Important:

Postemergency response is the stage of the emergency response where the immediate threat from the release has been stabilized or eliminated, and cleanup of the site has started.

When cleanup is done by the employees who were part of the initial emergency response, the employees are not covered by this section (however, training, PPE and other requirements in WAC 296-307-70460 through 296-307-70470 apply to these employees).

WAC 296-307-70475 (Cont.)

You must:

(1) Follow Table 10 to determine which requirements apply to your postemergency response activities.

(2) Maintain clean-up equipment as specified in Table 10.

Table 10
Rules that Apply to Postemergency Response Activities

When postemergency response cleanup is performed by employees who were not part of the initial emergency response and:	The following rules or requirements apply:
It is necessary to remove hazardous substances, health hazards and contaminated materials (example: Soil) from the site.	Chapter 296-843 WAC, Hazardous waste operations.
Cleanup is done on plant property using plant or workplace employees **AND** It is not necessary to remove hazardous substances, health hazards and contaminated materials from the site.	For training: • WAC 296-307-35015 and 296-307-35018, Employee emergency action plans • Chapter 296-307 WAC, Part Y-5, Respiratory protection • WAC 296-307-550, Employer chemical hazard communication • Other appropriate training requirements relevant to personal protective equipment (PPE) and decontamination For equipment: • Make sure that all equipment used for clean-up work is serviced and inspected before use.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70475, filed 12/21/04, effective 04/02/05.]

WAC 296-307-70480 Definitions. The following definitions are specific to this section:

Annually
Any twelve-month cycle.

Buddy system
A system of organizing employees (who enter or stand by danger areas) into work groups, so each employee can be observed by at least one other member of the group. The purpose of this system is to provide rapid assistance to employees in an emergency.

Clean-up operation(s)
An operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared up or, in any other manner, processed or handled with the goal of making the site safer for people or the environment.

WAC 296-307-70480 (Cont.)

Danger area
Areas where conditions pose a serious danger to employees, such as areas where:

- Immediately dangerous to life or health (IDLH) conditions could exist
  OR
- High levels of exposure to toxic substances could exist
  OR
- There is a potential for exceeding the lower explosive limit (LEL), also known as the lower flammability limit (LFL), of a substance.

Decontamination
Removing hazardous substances from employees and their equipment so potential adverse health effects will not occur.

Emergency response
An organized response to an anticipated release of a hazardous substance that is, or could become, an uncontrolled release.

Emergency response plan
A written plan that requires coordination between emergency response participants, and contains procedures, criteria, and other information that will be applied to emergency response operations. Each employer's plan should be compatible with local and state plans.

Engineering controls
Methods of controlling employee exposures by modifying the source or reducing the quantity of contaminants.

Hazardous materials team (HAZMAT team)
A group of employees who are expected to perform responses to releases, or possible releases, of hazardous substances for the purpose of control and stabilization. As a result of their duties, HAZMAT team members may have close contact with hazardous substances.

Note: A HAZMAT team may be a separate component of a fire brigade or fire department.

Hazardous substance
Any of the following substances that could adversely affect an exposed employee's health or safety:

- Substances defined under section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or "Superfund" Act (visit: http://www.epa.gov)
- Biological or other disease-causing agents released that could reasonably be expected to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in a person or their offspring when the person:

  - Is directly exposed to the agent in the environment
  - Directly ingests, inhales, or assimilates the agent from the environment
  - Indirectly ingests the agent through a food chain

- Substances listed by the United States Department of Transportation as hazardous materials under Title 49 (Transportation) in the Code of Federal Regulations (CFR), Part 172, section 101 and appendices (visit: http://www.nara.gov and search for "List of CFR subjects")
- Hazardous wastes as defined in this section.

WAC 296-307-70480 (Cont.)

Hazardous waste
A substance designated by chapter 173-303 WAC, Dangerous waste regulations, department of ecology, as a dangerous waste or an extremely hazardous waste and any waste fitting the definition of "health hazard" in this section.

Note: For department of ecology regulations, visit: http://www.ecy.wa.gov.

Health hazard
A chemical, a mixture of chemicals, or a pathogen for which there is statistically significant evidence, based on at least one study conducted according to established scientific principles, that acute or chronic health effects may occur in exposed employees.

The term "**health hazard**" includes stress due to temperature extremes and chemicals that are:

- Carcinogens
- Toxic or highly toxic agents
- Reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, or neurotoxins
- Agents acting on the hematopoietic system agents that damage lungs, skin, eyes, or mucous membranes. (Detailed definitions of these chemical terms can be found in the Safety and health core rules, WAC 296-307-550, chemical hazard communication.)

Immediately dangerous to life or health (IDLH)
Any atmospheric condition that would:

- Cause an immediate threat to life
  OR
- Cause permanent or delayed adverse health effects
  OR
- Interfere with an employee's ability to escape.

Incident command system (ICS)
An organized approach to control and manage operations at an emergency response incident.

Incidental release
A release that can be safely controlled at the time of the release and does not have the potential to become an uncontrolled release.

Note: Example of a situation that results in an incidental release:

A tanker truck is receiving a load of hazardous liquid when a leak occurs. The driver knows the only hazard from the liquid is minor skin irritation. The employer has trained the driver on procedures and provided equipment to use for a release of this quantity. The driver puts on skin protection and stops the leak. A spill kit is used to contain, absorb, and pick up the spilled material for disposal.

WAC 296-307-70480 (Cont.)

Limited action
Action necessary to:

- Secure an operation during emergency responses,
  OR
- Prevent an incident from increasing in severity.

Examples include shutting down processes and closing emergency valves.

Lines of authority
A preestablished ranking of individuals, qualified to assume a commanding role during an emergency response, noted in an emergency response plan and implemented during a response. This is most important when responders from multiple employers could participate in an emergency response.

Lower explosive limit (LEL)
See lower flammable limit (LFL).

Lower flammable limit (LFL)
The lowest concentration of a material that will propagate a flame. The LFL is usually expressed as a percent (by volume) of the material in air (or other oxidant).

Must
Must means mandatory.

Permissible exposure limit (PEL)
Means the established time-weighted-average (TWA) concentration or ceiling concentration of a contaminant that must not be exceeded.

The exposure, inhalation, or dermal permissible limit specified in chapter 296-307 WAC, Part Y-6, Respiratory hazards.

Personal protective equipment (PPE)
Protective items designed to be worn by the user to protect them against airborne, skin contact and other hazards. This includes items such as respiratory protection, protective suits, gloves, eye protection, etc.

Postemergency response
The stage of the emergency response where the immediate threat from the release has been stabilized or eliminated, and cleanup of the site has started.

Published exposure level
Exposure limits published in "*National Institute for Occupational Safety and Health (NIOSH) Recommendations for Occupational Safety and Health"* (DHHS publication #92-100, 1992).

If an exposure limit is not published by NIOSH, then "published exposure level" means the exposure limits published by the American Conference of Governmental Industrial Hygienists (ACGIH) in "TLVs and BEIs-Threshold Limit Values for Chemical Substances and Physical Agents" (1999 edition).

Note: Additional exposure levels published by recognized organizations such as the American Industrial Hygiene Association are not required to be observed by this rule; however, they may be a useful resource when a hazardous substance is not covered by NIOSH and ACGIH publications.

WAC 296-307-70480 (Cont.)

Release
A spill, leak, or other type of hazardous substance discharge.

Uncontrolled release
A release where significant safety and health risks could be created. Releases of hazardous substances that are either incidental or could not create a safety or health hazard (i.e., fire, explosion or chemical exposure) are not considered to be uncontrolled releases.

Examples of conditions that could create a significant safety and health risk:

Large-quantity releases
Small releases that could be highly toxic
Airborne exposures that could exceed a WISHA permissible exposure limit or a published exposure limit and employees are not adequately trained or equipped to control the release.

Example of an uncontrolled release:

A forklift driver knocks over a container of a solvent-based liquid, releasing the contents onto the warehouse floor. The driver has been trained to recognize the vapor is flammable and moderately toxic when inhaled. The driver has not been trained or provided appropriate equipment to address this type of spill. In this situation, it is not safe for the driver to attempt a response. The driver needs to notify someone of the release so an emergency response can be initiated.

Workplace

- A fixed facility
  OR
- A temporary location (such as a traffic corridor)
  OR
- Locations where employees respond to emergencies.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-01-166 (Order 04-19), § 296-307-70480, filed 12/21/04, effective 04/02/05.]

Resource Section
Emergency Response

Developing Emergency Response Plans Basic Planning Considerations

Important Information!

Chapter 296-307 WAC, Part Y-10, Emergency Response to Hazardous Substance Releases Rule, **requires** you to do the following if there could be an **uncontrolled release** of a hazardous substance in your workplace:

- Develop and follow an Emergency Response Plan (ERP)

OR

- Develop and follow an Emergency Action Plan (EAP)

This optional tool will help you develop an ERP. Planning an ERP and preparing designated employees for responding (including training, equipment, and medical surveillance) is more complex than the requirements for an EAP.

Before using this guideline see:

- The "Scope" section of Chapter 296-307 WAC, Part Y-10, for more information about uncontrolled releases.
- The EAP requirements in Chapter 296-307 WAC, Part S, Employee Emergency Plans and Fire Prevention Plans.

INSTRUCTIONS:

- **Before** you use this guideline:

  - Identify (by performing a hazard assessment), the types of uncontrolled hazardous substance releases that could occur in your workplace.

  - Familiarize yourself with the rule requirements in Chapter 296-307 WAC, Part Y-10.

Follow all these steps to plan for **EACH TYPE** of uncontrolled release that could occur.

Step 1. Identify expected hazards.

- Hazard assessment needs to be done by an individual who has appropriate technical knowledge and experience.
- This information forms the basis for selection of personal protective equipment (PPE) and development of emergency response procedures.

- If confined spaces could exist site-specific evaluations and procedures may be necessary. Follow requirements in Chapter 296-307 WAC, Part Y-8 to identify confined spaces.

Step 2. Make sure all potential participants are involved in planning, whether the response involves only your employees or other employees at the site. Make a written agreement covering all of the following:

☐ How potential participants will be notified when a release occurs. Be specific about the communication system to be used (for example, method to use, and sequence of contact).

☐ What roles your employees will take during the response.

- See Table 1 in Chapter 296-307 WAC, Part Y-10, for roles and duties employees may assume during a response.

☐ Who assumes the Incident Commander position both initially and whenever a new response participant arrives.

- New response participants you should consider are site-response teams, fire departments, law enforcement, HAZMAT teams, emergency medical services, state or federal officials, and other affected employers in the vicinity.

Step 3. Describe how your employees will be alerted to the release.

- Examples of methods to use for alerting employees include dedicated radio frequencies, siren blasts, and alarms linked to monitoring devices.

Step 4. Plan and describe your site's evacuation procedures. Specify:

☐ Who initiates the evacuation and notifies employees

☐ Primary and alternate escape routes

☐ Who will assist in evacuating employees, including physically challenged employees

☐ Where the "safe" primary and secondary assembly areas will be

☐ How you will account for all employees and any others present

☐ How first aid needs will be supported

Step 5. For releases at your facility or job site, decide if any of your employees (for example, process operators) need to control or shut down critical processes before designated responders arrive.

- If actions require these employees to enter the danger area they need to be trained as emergency responders.

☐ Develop procedures for these employees, including:

- Identifying circumstances that trigger such actions
- Specifying how selected employees will be notified to start the procedures
- Describing how to perform actions safely

Step 6. Identify employees who will be emergency responders. Make arrangements to train these employees, or certify competencies, on their expected roles and duties.

☐ Decide and document how competencies will be determined.

☐ Review course outlines to make sure training is complete.

☐ Make sure documentation of training or competency is provided.

Step 7. Develop and carry out a medical surveillance program for your employees as specified in Chapter 296-307 WAC, Part Y-10, Sections 70420 through 70430.

☐ Identify covered employees.

☐ Make arrangements for appropriate medical surveillance (for example: exams or consultations).

☐ Provide and document the appropriate surveillance for employees.

Step 8. Develop and carry out a written PPE program for your emergency response employees that covers all of the following:

☐ Selection of PPE for the hazards expected

☐ Limitations, capabilities and hazards of wearing PPE

☐ How to identify and prevent heat stress (and related injuries), if applicable

☐ Proper fit procedures for PPE, if applicable

☐ Procedures for maintenance (decontamination, cleaning, repairs, storage and disposal)

☐ Training and documentation to support all program elements

☐ How to effectively evaluate the PPE program

- You can combine other written PPE-related program requirements from Chapter 296-307 WAC, and The General Occupational Health Standards, Chapter 296-62 WAC, into this program to prevent duplication of written programs.

Step 9. Make arrangements to properly equip your emergency response employees. Provide:

☐ PPE such as respirators, protective suits, gloves.

☐ Rescue equipment, if needed (for example, retrieval devices for confined spaces).

☐ Air-monitoring devices and other field equipment, if needed.

Step 10. Make arrangements to provide appropriate emergency medical treatment and first aid to your emergency response employees.

☐ Identify who will provide emergency medical services (EMS).

☐ Determine notification procedures.

☐ Specify where the medical assistance area will be located.

☐ Include provisions for transporting individuals, if necessary.

☐ Provide training and proper equipment to in-house EMS employees.

Step 11. Develop written emergency response procedures that:

☐ Specify how all response participants will communicate in joint operations and describe the chain of command.

☐ Describe methods for securing and controlling access to the site (i.e., work zones, equipment, personnel, procedures).

☐ Describe methods for identifying hazardous substances and hazard analysis.

☐ Specify control methods.

☐ Detail how proper PPE is selected.

☐ Designate necessary equipment and personnel duties for handling the release.

☐ Describe when the buddy system will be used.

☐ Detail decontamination methods (i.e., equipment, personnel, location, set-up).

☐ Identify procedures for completing the response.

Step 12. Plan and conduct on-site drills at least once a year to determine if your evacuation and notification procedures are sufficient. Drills should include all emergency response participants who would be involved in a response.